Lavani Somesan

User's Manual

Setup and Compilation

1.) Download and unzip the Github file.

2.) The submission includes:

- main.cpp
- customer.h
- customer.cpp
- priorityQueue.h
- priorityQueue.cpp
- fifoQueue.h
- fifoQueue.cpp
- service.h
- service.cpp
- analyticalModel.h
- analyticalModel.cpp
- UsersManual.docx (this file)
- UML-Diagram.docx

3.) Environment: This program has been tested in the multi-platform lab and will run there.

4.) Compiling. This program includes a *Makefile*. At the command line in Linux, type *make clean main*. The program produces an executable entitled *main*.

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Running the program: Issue the command *./main* No command line arguments are required or checked.

User input: User is required to input an integer value between 1000 to 5000 for *number of arrivals*, input an integer value between 1 to number of arrivals for *lambda*, input an integer value between 1 to number of arrivals for *mu*, and input an integer value between 1 to 10 for *number of servers*. User must input in this specific order: *number of arrivals, lambda, mu*, then *number of servers*.

Output: All output goes to the console. Output will be similar to this:

```
Analytical Model
----------------
Lambda = 2
mu = 3
M = 2

Po = 0.5
L = 0.75
W = 0.375
Lq = 0.0833333
Wq = 0.0416667
Rho = 0.333333

Simulated Results
-----------------
Idle Time Po: 0.464859
Total Number of Customers Who Waited: 138
Average Time Customer's Waited Lq: 0.138
Rho: 0.0749249
```